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AUTHOR Aquila, Frank D.
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ABSTRACT

Educational managers may benefit greatly from adoption or adaptation of Japanese managerial practices, such as "Theory Z," involving developing staff potential and the creation of new incentives. There are at least 17 things administrators can do to utilize the key tenets of Japanese management. These include allowing teachers to "stop the assembly line" whenever a student needs a more specialized learning plan, eliminating waste of materials and time, developing quality circles, improving the administration-teacher relationship, providing lifetime employment assurance, and developing a theme for each school. One of the most important Japanese approaches to management is the quality circle, a small group of workers who meet several times a month to solve common problems and improve the product. This approach can be successful in schools if implemented correctly. Specifically, administrators must (1) view quality circles as part of an overall management approach, (2) look beyond short-term benefits, (3) select people for the quality circle who work in the same area, (4) anticipate difficulties from teachers' unions, and (5) be aware that each particular quality circle functions in a unique way, as well as consider other recommendations. Japanese management principles have exceptional potential, but must be approached with careful analysis of their suitability. (JM)

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JAPANESE MANAGEMENT PRACTICES:

Everything You Didn't Want to Know But Should Have Asked

Prepared for presentation at the 1983 American Association of School Administrators Conference.

Frank D. Aquila, Ph.D.
Associate Professor
Educational Administration
University of Missouri - Kansas City
Kansas City, Missouri 64110

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American educators in the 1990's are going to speak about the "Japanese challenge" just as we today discuss the "post-Sputnik" era of the 1960's. The Soviet launching of a satellite so alerted America to the possibility of losing the race for space that it ushered in a golden age of funding support for elementary and secondary education. The need for scientists led to monetary increases for pre-service programs and math and science in-service projects such as the successful National Science Foundation Institutes and National Defense Education Act. Clearly, Kennedy's national objective of having a man on the moon by the end of the 60's focused attention, increased support and generally improved education.

The almost irrational reaction to increased Japanese productivity, their market penetration in the automobile, steel and television industries, could prove to be the stimuli needed to stimulate increased support for education. One reason that I believe that education has a brighter near-term future is that the success of the Japanese has been attributed not only to improved management techniques but also to higher IQ scores and to stronger high school mathematics and science requirements. It may be that the Japanese are simply better educated in the basics. It is unsettling, if not frightening, to find out that Japanese children so outperform our own. Additionally, the Japanese intelligence advantage over our children has increased this century. Eysenck and Kamin[1] point out that:

1. Japanese children hold an 11-point edge over Americans in IQ test scores. The latest evidence shows the mean Japanese IQ is 111, compared with 100 in the United States.
2. At least 10 percent of the Japanese population has an IQ of 130 or more(where 130 being the arbitrary level where individuals are bright

enough to excel in business management or professions such as law, medicine or teaching).

3. Only about 2 percent of the American population, in contrast, has an IQ of 130 or more.

Traditional explanations for Japanese productivity gains focus on improved management techniques such as organizational loyalty, quality control, lifetime employment, on-line executive training, more effective capital production, employee incentives and the governmental-business partnership. Recently, education is being identified as the real key to Japanese productivity. If this is true then are the Japanese better educated? better readers? more literate? and understand better? Sadly, the statistical evidence appears to support affirmative answers to these questions. The New York Stock Exchange productivity study[2] points out that:

> About 95 percent of Japanese teenagers now graduate from high school compared with approximately 74 percent in the United States. The Japanese high school graduate has the equivalent of about for more years of schooling than the U.S. high school graduate because of the longer school week and the additional weeks to the school year.
>
> In both mathematics and science the mean scores of Japanese school children are higher than in any other country -- far higher than in the United States. Moreover, there is less variability to scores, suggesting that educational achievement in Japan is widespread.
>
> Thirteen percent of U.S. high school students in one survey could not perform reading tasks designated "functional"; 28 percent could not answer questions testing "literal comprehension" of what they read; and nearly 10 percent couldn't write prose deemed marginally acceptable.
>
> The results were much worse with regard to anything beyond basic skills. Fifty-three percent could not write a letter correcting a billing error.

Interestingly, the Japanese collegiate program is the exact opposite of the rigorous pre-university program characterized by rigorous entrance examination and concentrated study. College life places almost no demands on the student. Thus, the Japanese student mentally prepares in high school and

applies his learning on the job until he fully understands that which is expected. In contrast, the American student learns the most advanced techniques in college but is not involved in factory work which is considered demeaning. Rather he/she learns to manage. Unfortunately, American managers often do not understand the job or the worker nor do the workers understand him/her.

Education and Productivity

The relationship of Japanese productivity gains related to the high quality of primary and secondary education is also discussed by Epstein and Gelb.[3] While some might argue about whether schooling is the key to productivity and performance, few would question that school plays a significant role.

While Japan performed a postwar economic miracle, they, at the same time, revolutionized the schooling of their children. The Japanese government with General McArthur's assistance vigorously pursued the goal of a universal high-school education. By 1950, 43% of all 15 year olds went to high school. This figure increased steadily surpassing 95% by 1980. At the same time, enrollment in nursery schools and kindergartens increased from an insignificant minority to an overwhelming majority of all four and five year olds. Because Japanese children learn to read in nursery school these additional two years are most important.

Almost 95 percent of Japanese students graduate from high school compared with a 74 percent graduation rate in the U.S. Additionally, Japanese schools are in session five-and-a-half days a week--and there are more weeks to their school year. The result is that a graduate of a Japanese high school has the equivalent of approximately four more full years of schooling than a U.S. high-school graduate. Further, international surveys of educational achievement show that the mean scores of Japanese school children in both science and mathematics are higher than in any other country--far higher than in the U.S.

The degree of variability around the mean is one of the lowest for the Japanese indicateing that educational achievement in Japan is generally widespread. The potential danger for America and the American way of life is dramatically illustrated in the following excerpt from a study of Japanese high schools:

> The great accomplishment of Japanese primary and secondary education lies not in its creation of a brilliant elite ... but in its generation of such a high average level of capability. The profoundly impressive fact is that it is shaping a whole population, workers as well as managers, to a standard inconceivable in the United States, where we are still trying to implement high school graduate competency tests that measure only minimal reading and computing skills.[4]

The negative role of the schools in affecting productivity poses a greater danger here than in Japan -- in America schooling is now serving as a brake rather than as an accelerator. Sadly many Americans are poorly prepared even for the minimal requirements of the workplace. The National Assessment of Educational Progress (NAEP) which surveys the knowledge and the skills of elementary- and secondary-school students evidences the extent of the problem. NAEP showed that: (1) 13% of the high school students surveyed could not perform reading tasks designated as "functional", (2) 28% could not answer questions testing "literal comprehension" of what they read, and (3) almost 10% could not write prose deemed to be even marginally acceptable (November, 1981).

The results are more stark when analyzing beyond basic skills education. Additionally, NAEP findings were restricted to high school students and did not include the 26 percent who had already dropped out of school. Just how much lower these scores would have been had these dropouts/pushouts been included is frightening to contemplate.

Can We Learn Anything Practical from Japanese Management?

In an upcoming guest article[5] the American Association of School Administrators points out to its practicing administrators that much attention in recent years has

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been focused on Japanese management practices and their implications for management in the United States. Some observers believe that management approaches are the key to Japan's stunning economic success in the past decade, and that managers in fields such as education can benefit greatly from adoption or adaptation of Japanese practice. Others, however, believe that factors other than management largely account for Japan's "economic miracle" and, that in any case, there is little chance of adapting Japanese practice successfully and/or little to be learned from it that we do not already know.

Among the Japanese management practices most frequently cited as having a central role in Japan and greatest implications for managers elsewhere are those described by William Ouchi in a number of articles and an influential 1981 book titled Theory Z: How American Business Can Meet the Japanese Challenge. Ouchi particularly emphasizes the following characteristics of Theory Z management in Japan:

- commitment to long-term employment in a relatively egalitarian setting marked by a high level of trust and teamwork, and widespread acceptance of individual responsibility for achieveing organizational goals.
- relatively nonspecialized career paths that promote collaborative decision making, and relatively infrequent evaluation and promotion based on informal and mutual recognition of long-term organizational goals.
- wholistic concern for people based on recognition of the individual's need for affiliation, participation and achievement, and on organizational provisions for taking account of employees' emotional, physical, and spiritual needs.

Other observers broaden the analysis of Japanese management and society in citing a variety of additional or alternate reasons for Japan's economic progress:

1. National homogeneity and solidarity.
2. A very high rate of individual saving along with effective national arrangements for creating and directing investment.
3. A relatively egalitarian social structure when defined in terms of income differentials between the poor and the wealthy.
4. A history of great loyalty to existing social structures ranging from the family to the national government.
5. An enormous national effort to provide effective education on a widespread basis at every level from pre-school through higher education.
6. A massive effort to provide managers at all levels with training in modern practices.

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7. A consistent societal stress on quality of production in achieving organizational goals.

It has been clear for some time that quality of production has been too often neglected -- no matter how much lipservice it has received -- in the operation of both governmental and non-governmental organizations in the U.S. Not just in business but also in education, simplistic Management by Objectives approaches have helped generate an emphasis on quantity of immediate results rather than quality of long-range results. Annual, semi-annual, or even monthly MBO arrangements as well as other administrative approaches that lose sight of quality of output frequently have distorted efforts to improve organizational performance. A much greater stress on quality is needed in American organizations, through emphasis on reform of operations and on widespread participation in identifying and solving problems that hamper performance at the implementing unit level; i.e., the school.

Recommendations for Implementation of Japanese Management Techniques

Below are some general recommendations[6] whereby administrators can utilize the key tenets of Japanese management in their own school program. Obviously, this list is illustrative. It is meant merely as an indication of a limited number of approaches. With a little thought and situational application you can devise many other techniques.

Please remember that these are variations based on Japanese management approaches. There is no guarantee that they will be as successful in American schools. Yet, the techniques suggested are important enough that they should be of benefit; in fact, many should have been or may already be in use in your building.

1. Allow teachers to "stop the assembly line"

The concept of "jidoka" is one where any Japanese factory worker can stop the assembly line when something is wrong. Could this concept be transferred to our educational programs? While seemingly impossible, wouldn't it be

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something if a teacher had the ability to stop the total educational process for one child whom the teacher knows is not performing up to capacity. Then a specialized program and learning plan could be developed to help that student before the child physically or psychologically drops out.

2. Eliminate waste

A school task force could be established, its purpose being to eliminate wasteful practices in schools and central office. There are many areas that could be reviewed from paper waste to capital bidding procedures. An offshoot of this might be an area clearinghouse where school people from various districts could exchange lists of their excess expendable materials for exchanges and/or credits. It is amazing how much instructional time is lost or wasted in a school day. Teachers are often forced to spend too much time with managerial and clerical tasks. Elimination or even reduction of such activities would improve the instructional process. Recent research studies exploring engaged time-on-task establish that effective schools are schools where teachers use instructional time more efficiently.

3. Develop quality circles

The use of quality circles could be an effective tool. These incentive groups could allow for teacher involvement in the operation of their school in a structured manner and usually at low cost. The organization of small group incentive circles would vary depending upon the school system and the specific building situation. One approach could be grade level circles at the elementary level and departmentally structured circles, at the secondary level. It is important that proper training and leadership be given to each member of a quality circle so there is structure and a direction to the circle's activities. By implementing a quality circle concept, teachers should learn to work together and with administration, with a team or family concept emerging.

Educators are often ineffective when forced to work with non-students. Too often teachers close their classroom doors, allowing nothing or no one to invade

the sanctity of their domain. This is similar to a model wherein teachers are medieval monarchs with their own fiefdoms, never crossing into the territory of the other king or queen unless there is conflict or a common threat. Today, we have schools where each classroom is a separate fuedal fief with the only interaction occurring in those intersticine areas called hallways. Certainly, some teachers and schools utilize team teaching and other cooperative efforts; but, we need to encourage further the development of teamwork. Jointly working together we can fulfill goals and objectives through the structured interaction required by quality circles. An additional benefit would be developing ownership and furthering our commitment to education's products, our children. This type of joint commitment is apparent in most Japanese factories as team spirit and enthusiasm prevail. This same team spirit and enthusiasm is present in effective American schools -- unfortunately, not in enough of them.

4. Improve the attitudes of administration and teachers

Teachers and administrators have, all too often, been drawn into opposite camps. Polarization develops and neither group is able to interact and exchange ideas and beliefs because of the invisible barrier. It is therefore imperative that American develop the collegial approach characteristic of Japanese management. Administrators must go out of their way to make teachers feel that they, and their ideas, are important. Teachers often complain that administration neither listens nor acts upon their ideas, that politics play a more important role than personal beliefs and right and wrong. The development of joint committees of teachers and administrators to review management practices and encourage suggestions from staff could be a valuable morale builder and help to reduce the polarization.

5. Provide a lifetime employment assurance

Surprisingly, we really do not have to do as much as you might expect in order to implement a lifetime employment package in our schools. Essentially,

a lifetime employment situation is established in education when tenure is granted. Because of budget priorities recently even tenured teachers have been released but an analysis of districts where such cuts have been made shows that few tenured teachers have been released. If we are careful whom we tenure and if we establish an extended probationary period, the implementation of lifetime employment is possible. Lifetime employment would provide the added benefits that accrue when the employee willingly links with management to work toward common goals: each student's success is your success and every failure is your failure. Adoption of common objectives might be analogous to William White's description in The Organization Man where employees internalized the goals and objectives of the company as their own thus supporting the company, confident in the realization that the company supports them.

6. Develop a theme for each school

Japanese management calls for a company to focus in one area. The company becomes experts in that specific area. Often a Japanese company will not move into other markets trying for short term profits if this requires shifting their focus or theme. American education could adopt this approach by developing a specific focus or theme for various schools. In some school systems this is already occurring with the development of magnet-type schools.

There is value in a focused approach because teachers, students, and community people soon realize what is expected from a theme school. The research of Edmonds and others points out that one characteristic of an effective school is one where faculty, students, and administrators know what is expected and hold common beliefs as to student expectations. This focus factory concept would apply in American education through expanding specialization techniques. In general terms this is being done today in special school districts that provide vocational or special education services.

7. Treat teachers with respect

The attitude of Japanese managers toward their employees is characterized by respect and dignity. Do you find this management attitude toward teachers in American schools? Probably not. We have for too long been fragmented and competitive. Warring camps have formed between teacher groups and the administration/school board. Such divisiveness is dysfunctional. We must incorporate a belief based not merely on the importance of teachers, but rather on the paramount position played by the classroom teacher. Teachers have far more abilities than they are allowed to utilize because of this polarization. A fundamental tenet of McGregor's Theory Y management philosophy[7] is that individuals, given the opportunity, will willingly work to capacity. Yet, this will never occur unless teachers are allowed to develop and grow by breaking down the artificial barriers created by labor/management paranoia.

8. Institute personal development plans

Schools could develop an individual plan for personal development or growth for each staff member. Principals could work with a staff member to target individual growth and development goals. This might involve graduate education leading to advanced degrees, possibly an administrative position in the system. Others might desire separate training to become a master teacher or to develop a specific skill such as microcomputer technology which will enhance their classroom instruction. These personal development plans would benefit the teacher, the school system and the child.

9. Reduce the size of our schools

Japanese successfully utilize the concept of smallness with most of their factories being small. This suggests that we may need smaller student bodies so teachers could operate more effectively in a community atmosphere. There is little if any research to document the educational benefits of an elementary school with more than 600-800 students, or a high school of more than 1200 students. Yet, searching for economies of scale, there are many urban and suburban

schools with thousands of children. A much more closely-knit familial situation could develop if we adopted the Japanese concept of smallness.

10. Promote more slowly

With Japanese management, promotions are somewhat slower and everyone is promoted, especially early in their careers. While this could present some difficulty, especially in American administrative circles, it follows where lifetime employment is guaranteed. From an educational perspective, we actually have a variation on this same theme. Promotions in the form of salary raises for teachers are step by step on the traditional salary schedule until a teacher reaches the top of the scale. Promotion in the form of college credits and degrees is irregular but is automatic whenever the teacher completes the requisite hours of approved course work/degree.

11. Use modern technology

Japanese managers make effective use of technological innovations. One example is robotics. Most Japanese factories utilize automated processes to include robots when feasible. Until recently all of the robots used in Japanese factories were produced in American plants. Ironically, few American factories utilized the robots that American industry produced.

American education could utilize computers and other technological processes to eliminate the boring and repetitive parts of a teacher's job. The microcomputer explosion which we are entering has an unlimited potential. Hopefully (after we have initially failed with microcomputers due to nonuse, misuse and abuse) we shall properly utilize this potentially invaluable technological tool.

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12. Institute quality control systems

Japanese factory workers are their own quality control sources. They take pride in their work and in the ability and responsibility to stop the assembly line when product defects are located. American educators at all levels and

positions need to be encouraged to think about educational quality control, the abilities (and defects) possessed by the students (our products) we graduate. Often we know our students have problems yet we allow them to continue in school unable to read, compute or perform even the basic skills necessary for societal survival. We do have a form of quality control through federal regulations, especially special education requirements. Those very same special education requirements which require individualized educational plans should be developed for every child. Then at the end of the twelve years of education, we might not have parents and children filing malpractice suits challenging the ability of American education to educate -- clearly a quality control breakdown.

13. Institute school-within-a-school programs

Interestingly enough, the Japanese concept of clustering of unlike machines might be compared to the school-within-a-school concept. The Japanese concept is that machines of different types are clustered together in such a way that one person, or a small group of workers, can control the complete processing of a product (interestingly, this concept, like so many other Japanese management techniques, was originally developed in America). Some American schools have school-within-a-school programs, wherein a select group of students take all of their coursework and classes from the same group of teachers. Unfortunately, administrative difficulties and implementation problems have precluded conclusive research of the effectiveness of this innovative conceptual approach.

14. Institute a participatory management approach

The concept of bottom-round management, "ringi", is a participatory approach where new ideas are initiated at lower management levels. In education all individuals in the process would have input in the operation of the schools. This would call for administrative decisions based on input from those in teaching positions. Committees involving teachers and students would be given an opportunity to provide input prior to adopting a management decision. This

concept is feasible when analyzed from the perspective of a single school. Committees within the school, as well as within a classroom, could provide structured input so as to improve the management of the school. This concept would interact with quality circles. It would be invaluable if students were involved in the decision-making process. Morale would be far higher in a school if students actually knew that their input was listened to, that they had a chance to affect the way their school operated.

15. Implement inventory control techniques

The Japanese concept of just-in-time production involves keeping a minimum inventory. With a small inventory, necessary changes can be more readily detected and instituted. This just-in-time production concept for education implies that we teach skills and knowledges only when students were ready to learn. Students should not be given instruction in new and more difficult material where they could not succeed (inventory-stocking) until they accomplish and learn the previous materials. Each student would have to be taught individually and the pupil/teacher ratio would probably need to be reduced. Teachers would also have to accept the fact that children of different ages would be in the same classroom because we would be dealing with how much a child has learned as opposed to chronological age.

16. Lessen the influence of state and federal teachers associations and unions

Japanese management approaches involve a close working relationship with factory unions. Japan has factory unions, comparable to our local school district associations. There is no international or trade union movement comparable to our AFL/CIO. Japanese factory unions work closely with management to implement the goals of upgrading people and increasing productivity. This factory union concept would be most difficult to implement in American education. It is open to question whether by eliminating national teacher association/union control, there would be a greater opportunity to develop that esprit de corps

and coordination discussed earlier. Obviously, teachers would be fearful of being misused and abused by management. Interesting, the Japanese teachers union is a national union, one of the most powerful in Japan.

17. Spend more time planning

The Japanese practice of bottom-round management also calls for extensive amounts of time directed to planning and discussion. This would be difficult in our society where quick decisions are all too often a sign of "effective" administrators. The Japanese believe that Americans spend the same total amount of time in the decision process; but the Japanese spend 90% of their time planning and 10% implementing while Americans spend 10% of their time making the decision and 90% trying to implement them. The Japanese believe that they are more effective because they implement many more of their decisions than Americans.

The Theory Z School

Theory Z as described by William Ouchi involves developing staff potential as well as the creation of new incentives and a new philosophy of management. For the complete implementation of theory Z in an American organization such as a public school system everyone, not only middle and top-level managers, must fully understand the conditions necessary for success of the program. Further, these managers must create or enhance those conditions.

The implementation of Theory Z in educational institutions will take time. Two or three years might pass before a Theory Z change strategy permeates the ranks of administrators and teachers so that results appear in the teaching/learning of children.

To realize the full potential of its employees, it will take both an investment in employee training as well as the sharing of the power to influence decisions. Absent training, the invitation to participate in decision-making will probably lead only to conflict; absent shared decision-making power, the

investment in training will be both wasteful and frustrating.

The thesis is now being espoused that the principles which lead to higher productivity in industry can be used to boost the effectiveness of other social institutions. Thus, educational productivity might be improved by studying how private enterprise achieves higher levels of corporate growth. In other words, educators need to look at schools through a Theory Z lens. Recent highly publicized educational research documents that there are very prominent parallels between Type Z style productivity in industry and increasing the effectiveness of schools.[8]

In educational language, George believes that a Theory Z school should be able to answer affirmatively to these questions:

1. Does the school staff have a written philosophy that is implemented in the daily activities of the school? Does each member of the staff subscribe to the philosophy and also have regular opportunities to participate in refining that statement?

2. Does the curriculum of the school fit the philosophy? Are the goals of the curriculum specific and clear? Will the members of the staff be able to determine the extent to which the goals have been met? Are both extrinsic and intrinsic methods of accountability brought to bear in the measurement of the degrees of success that have been achieved?

3. Are the instructional strategies used by the faculty in line with the curriculum goals to be achieved? (If, for example, increasing the school's profile on standardized tests of academic achievement is a goal, do the teachers act in ways which are consonant with what is known about teacher effectiveness?)

4. Is the school organized in a way which permits teachers and students to get to know and care about each other and to extend these relationships over time?

5. Is there evidence of regular and continuing involvement of all persons, in appropriate ways, in the decisions that determine the course of life in the school? Are there vehicles in place to ensure that this occurs?[9]

Quality Circles

Quality-control Circles or quality circles (QC) as they are most often called is an approach developed by W. Edward Deming where a small group, usually no more than eight to fourteen workers, in the same job task meet several times a month

to solve common problems to improve the product. These meetings take place during company time and the QC studies, discusses and poses solutions to quality and production problems. Financial incentives are provided for suggestions which save the company money. Some Japanese companies have an amazing number of successfully implemented suggestions. Quality Circles appear to be successful because they build on the skills and know-how of the workers who daily face the problems and whose efforts determine the quality of the product. Few difficulties should develop with implementing a similar model in American education. In fact, QC may be adopted without adequate preparation because of teacher interest. Teachers often complain that they are too infrequently provided with an opportunity to impact on the education in their building.

The Japanese Union of Scientists and Engineers has estimated the savings from Japan's quality circle program to be more than 25 billion dollars annually.[10] Observation of Japanese and United States workers have indicated a strong contrast in worker approach to company success. Japanese workers seemed to want the company to succeed while this was not true of workers in the United States.[11] The situation differs little in education. We have created a mutually antagonistic model. In far too many school districts teachers are directly opposed to almost anything proposed by administration or the school board -- the success of one is seen as a defeat by the other.

In some part, because of QC's the Japanese have developed (1) a national climate for creativity, (2) a concern about the development of talent in general (not merely in work settings or in schools), and (3) a future orientation. With an international sensitivity, Torrance, while somewhat critical points out that educators might learn to: (1) emphasize creativity in pre-school education and in the development of skills in the arts; (2) provide for rewards for creative achievements; (3) respect intuitive ways of knowing and solving problems;

(4) provide training in persistence and self-directed learning: and (5) have ability to use freedom with "the rules."[12]

The quality circle leader guides circle members through the QC process. The following is the basic four-step QC process:

Problem Identification
↓
Problem Selection
↓
Problem Analysis
↓
Recommendation to Administration

Using the QC process, members are guided to apply certain techniques to an identified problem. There are eight major problem identification techniques: (1) structured brainstorming and voting; (2) data gathering; (3) statistical check sheets; (4) pareto analysis; (5) group dynamics; (6) fishbone cause-effect analysis; (7) process cause-effect analysis; and (8) presentation skills.[13]

Quality circles are not costly to implement. The success of the QC depends more on effective training and strong leadership than on curriculum materials, teaching machines or a course of study. Essentially, it is a person-oriented endeavor that sustains and expands itself. The initial cost is for the training of a district facilitator. Cost will vary depending on access to training centers and on the extent of the desired training. Your facilitator then trains the building leaders who in turn train circle members. This is a modification of the old "trainer of trainers" model which has been effective when carefully controlled for personnel selected and structuring followup.

Larry Chase[14] discusses the general approach and procedure for implementing quality circles. He emphasizes the need for the superintendent and the building principal to realize that the teachers themselves must take personal responsibility for identifying and solving the critical problems of achievement in the school. While some administrators are fearful of implementing QCs because of its strangeness, others are aware that there is little risk involved with this

approach. Organizational development and climate research have shown that one key to increased job performance is active participation by employees in the decisions which affect them and their work.

Teachers tend to identify with those aspects of the organization that are successful and to criticize and not identify with the weaker, ineffective aspects of the organization. Usually, the superintendent and staff feel and/or assume responsible for those organizational areas that are not working. With a QC in education, improving quality and educational productivity would mandate that teachers take personal responsibility for that which is not working. Rather than criticizing, QC teachers feel that they themselves are responsible for problem resolution -- not merely blaming administrators.

The length of teacher training varies from one to three days. This should be sufficient to prepare teachers and administrators for implemention. QC training will usually cover the following topics: (1) cause-effect diagrams, (2) divergent thinking, (3) force field analysis, (4) histograms, (5) PACT skills, (6) situational leadership, and (7) Theory Z. Conceptually, quality circles are based on the writing of behavioral scientists such as Abraham Maslow, Douglas McGregor and Frederick Herzberg. These American's teachings were then wedded to the practices of the quality assurance leaders such as W. Edward Deming, J. M. Juran, and Kaoru Ishikawa.

While there is no generally accepted definition of quality circles, the following are elements of the normal quality circles: (1) members of the normal organizational work crew and their supervisor, (2) meeting on a voluntary basis, (3) at regularly scheduled periodic meetings, (4) to receive training in problem-solving techniques, (5) then identifying and prioritizing problems, investigating and analyzing causes, and (6) developing and implementing solutions when the authority to do so is within their purview.[15]

There are many positive features to quality circles as well as some potential

pitfalls and areas of concern. Among the positive features are: (1) they develop the problem-solving capacity of the staff; (2) they provide input on problems and potential opportunities from all members of the school; (3) they provide different perspectives on major issues; (4) they establish an ongoing system for solving critical problems; (5) they increase the collaboration between teaching faculty and administration; (6) they help everyone focus on results; (7) they turn the powerlessness felt by many teachers and administrators into result-oriented activities; (8) they can develop from reactive problem-solving to active goal-setting groups; (9) they help you solve problems. Among the dangers and potential pitfalls are: (1) the QC is implemented without proper planning; (2) expectations are too high and you expect results too soon; (3) time is not given for the QC to meet; (4) it is used when it is "needed" and not as a part of the ongoing management practice of the school; (5) the members are not given sufficient training in QC methodology; (6) you seldom use the recommendations made by the QC; or (7) the role of the QC is not clear to you, or the staff, or to the membership of the QC.[16]

Problem Areas and Recommendations

For those school people interested in exploring quality circle approaches, the following is a review of the problem areas which should be considered. This discussion is presented in the form of suggestions for you to consider as you plan your implementation.

Suggestion One: You should view quality circles as a part of an overall management approach and philosophy, not merely as an additional gimmick in your program development arsenal. The QC concept is one variation of participatory or bottom-round management. The QC concept has the potential to reorder how your organization operates and interacts. Therefore, you need to look at your school philosophy, staff composition, management approach and community style to insure that you want and need an organization based on participation --

one which could involve a somewhat unconventional management approach.

Suggestion Two: You must look beyond short term benefits. If you are looking for the proverbial quick fix, a QC intervention is not for you -- in fact it could backfire on you. Interestingly the real gurus of the Japanese QC movement should be Douglas McGregor and Abraham Maslow who provided the theoretical underpinnings for participatory management. Japanese managers have implemented their ideas successfully while we are now, ironically, attempting to copy our American techniques which have been successfully instituted in a different culture.

Suggestion Three: Select people for QC who work in the same area. You might select teachers from the primary level -- or all science teachers at the secondary level. By using people who work in the same area and have the same focus, they are better able to select, define and solve common problems. QC staff should always be provided specific training in order to prepare them to work together something university preparation programs and district staff development efforts rarely provide.

Suggestion Four: Anticipate difficulties from your teachers' associations/unions. In industry, some labor unions have taken a position opposing QC and other Japanese management programs fearing these approaches might limit their exclusive role in dealing with management. Additionally, increased productivity might lead to the elimination of teaching positions. I suspect that Japanese management approaches that have the potential to reorder a polarized labor/management situation will be viewed with skepticism by teacher groups.

Suggestion Five: Be aware that your QC program may produce different results depending on the people involved and the specific situation. The approach taken at the elementary level may be dramatically different from that taken at the high school level -- and the results equally divergent. People

concerned with cost savings and tangible results will focus on increased productivity while human resource/relations adherents will focus on people-enhancement aspects. Even approaches taken at the same level may themselves differ. For example, at the high school, science teachers might focus in on a concrete cost-savings approach while guidance and other support staff might look at people-oriented aspects of Japanese management. Of course, it is possible, even probable, than an integration of approaches will eventually develop.

Suggestion Six: Study your school district because QC may be totally inappropriate for your clientele. Businesses that have unsuccessfully utilized QC indicate that the main reason for failure was a lack of trust. Management and labor were unable to get along. Such a lack of trust and fundamental lack of respect needs to be evaluated by those planning to implement QCs prior to making a commitment. Problems which often develop with QCs include: (1) fear of the costs associated with the in-service training, (2) administrative reluctance to delegate authority, and (3) administrative apprehension to implement ideas developed by others.

Suggestion Seven: You need to integrate the management philosophies of those at the various levels of your organization. Districts that believe that they are practicing participatory management often find that top management utilizes McGregor's Theory Y approach while the principals are utilizing both Theory X and Theory Y and the assistant principals are operating from a Theory X posture. It is very important that your management team is committed and agrees always to use QC techniques. Furthermore, a 100% commitment to support and implement this program is needed from top management. Without this participatory commitment, the program will eventually fail. It will be difficult to get middle and lower management levels actively involved in QC's

until they see some benefit for themselves. In fact, there is usually a strong counterforce stifling innovative approaches because of the fear of job loss, lowered prestige, or loss in power.

Suggestion Eight: You must be willing to share power with those involved in the QC approach. More information must be provided than has been the practice in the past. In order for quality circle members to make effective recommendations, they will need information and data regarding costs, district goals and objectives and related information on past performance and district organizational/operating structures. Some districts will find that providing this information will be difficult because they have never formally written future goals, directions, etc.

Suggestion Nine: The school board and the top administration must realize that their roles will be changed. School board members and top district administrators must be willing to accept a significant role change. Unless these individuals realize that a change is needed, they will be unwilling to implement such changes. These new participatory roles for administrators will often produce ambiguity. Role change is difficult enough but trying to change a personal operating style often proves to be even more of a challenge.

Suggestion Ten: Top-level managers including school board members should become involved from the very beginning. Only by assisting in formulation of new policy guidelines and program objectives will there be sufficient "commitment from the top." With initial support from above, others will quickly support the QC concept. Top-level managers should probably become the steering committee. The membership of this steering committee might be expanded at a later date to include other members as appropriate.

Suggestion Eleven: You must establish guidelines and make recommendations regarding your expectations for the QC program. As part of the initial phase, you should establish objectives, develop ground rules, locate a funding base to pay for successful ideas, implement guidelines on length of meetings, as well as provide procedure to change the leadership role in "weak" circles. Other concerns needing identification include times for meetings, operating structure as well as a standardized procedure for reporting results.

Suggestion Twelve: Carefully select a person to serve as "facilitator." While outside consultants have often been used, it is probably best that you select someone from your own district to coordinate the various QC activities. Someone who knows your own operation has the advantage of familiarity. You can provide this person with the training in organizational dynamics and other facilitative techniques. Unfortunately, QC efforts nationally appear to be consultant-driven. Consultants are "coming out of the woodwork" offering to coordinate and provide quality circle services. At this time, these consultative efforts have been limited mainly to business; but shortly, an army of consultant "experts" will inundate education. Already, many consultants are adding a "dog and pony" regarding Japanese management and quality circles to their repertoire.

This is not to say that there is no role for consultants. They can often stimulate staff with an enthusiasm beyond that achievable by a local person. A consultant can also provide you with climate information about your school system so that you can make a better determination on implementing a QC program.

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Suggestion Thirteen: You should invest your money in training your QC participants. This commitment to training is imperative because a QC program is essentially one that is based on an improved learning atmosphere. Training can be expensive whether it is done on a release-time basis or as a paid after-school program. The training package might involve problem-solving, group dynamics, problem identification, cause/effect relationships, data collection, brainstorming and problem resolution.

Suggestion Fourteen: Principals should become involved in quality circles right from the beginning. By obtaining the building principal's commitment and involvement, a message is sent to other members of the staff. Principals will also realize that they really can be facilitators in addition to their traditional, safer role of manager. This new role could prove threatening because of fear that their power is being eroded. After initial principal involvement, the leadership of the circle can be given to another member of the circle and the administrator can, and probably should, withdraw.

An ancillary benefit of the QC approach will be the increased involvement and cooperation among teachers, administrators and board members. Interaction will occur when recommendations are made by the quality circle. This reporting of recommendations is called "management presentation" sessions. At these sessions quality circle members present their proposed solutions to top management, including the Board of Education.

Suggestion Fifteen: Be aware that you will not be able to measure your results in standard ways. You will not see an immediate increase in productivity as measured by improved learning rate of students, lower costs for purchased materials or even in labor savings. Yet, there should be a chain reaction of

mutually-supportive interactions involving problem resolution, collaborative efforts as well as an improved learning climate. While difficult to measure, benefits such as improvement in communication and attitudes should result.

Do Cultural Differences Prevent Utilizing Japanese Management Practices?

The United States is ahead of Japan in gross national production per employed person. However, when you exclude the American agricultural sector from the productivity index, the Japanese show a higher over-all productivity than Americans. Clearly, the Japanese have demonstrated remarkable economic growth. Their industrial productivity has grown an average of 8% annually in the last decade, while American industrial growth has been less than 2%.

Experts such as Ezra Vogel, Richard Pascale, Robert Hays, William Ouchi, and William Abernathy credit Japanese managerial practices as the key to Japan's success. The implication is evident: poor managerial practices in the United States, based on a short-term profit-orientation, employee-exploitation and market-driven behavior have caused a reduced level of capital investment as well as combative relationships between government and unions.[17]

Some argue that the Japanese managerial practices are so unique that they cannot be successfully transplanted in the United States without substantial modification to reflect cultural, economical, social, political reality. Managerial practices such as paternalism, lifetime employment, participative management, and seniority systems can be successfully utilized because Japan's culture is characterized by (1) uniform education, (2) racial homogeneity, and (3) individualism and competitiveness.[18] It could be argued that we would destroy the American way of industrial life if we adopted Japanese management practices. Others contend that this would be the best thing for us because American

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individualism, creativity, and entreprenurial spirit are no longer appropriate in the industrial marketplace.

After the war Japanese recognized that the quality of their products would have to improve before they could become a leader in the international market. The Japanese were once considered the "junkmen of the Orient" and "made in Japan" was a term of derision. But they realized the quality was not just a function of the finished product -- it included factors such as production time, prompt delivery, billing correctness and effective repair and maintenance. Improvements in service and cost in these areas could also lead to increased productivity. Therefore, the Union of Japanese Scientists and Engineers invited Edward Deming to come to Japan for a series of quality control lectures. The importance of placing quality control in the hands of middle management was emphasized. Interestingly, it was Japan which adapted the American Deming's ideas to their country and gave this responsibility to the people on the shop floor. One product of this approach was the quality circle.

The Japanese tend to view a business firm as a human community serving the needs of a diverse membership of employees, managers, as well as the general public. In contrast, many American managers view their organizations as an economic perspective to enhance the profit motives of their stockholders. Thus, accomodating the needs of employees and the public is subordinated to the need for the bottom line being in the black. This can lead to an exploitive managerial style, as opposed to a supportive one.[19]

In a discussion of culture, Chung and Gray explain that Japan is an old nation which has a long history of paternalistic arrangements between employers

and employees, and between superiors and subordinates. A paternalistic relationship called the "oyabu-kobun system" governs the relationships between superiors and subordinates in managerial organizations. Superiors assume the responsibility of guiding and mentoring their subordinates. The relationship is similar to that of foster parents; and, conversely, the subordinates exhibit personal loyalty toward their superiors. In that the United States is a relatively young nation which settled a new and sparsely populated land, people tend to be self-reliant and individualistic. Historical circumstance thus reinforce the American cultural values of an individualistic pursuit for wealth and success. While there is some mentoring in American firms, it is relatively infrequent compared to its use in Japan.

It is somewhat ironic that the basic tenets of the Japanese management were originated by Westerners, mostly Americans. The concept of stable employment was advocated in the famous theory of bureaucracy by Max Weber. The ideas of organizational family, employee participation, group management, and job enrichment were advocated by such American scholars as Douglas McGregor, Rensis Likert, Fred Herzberg, Peter Drucker,and Chris Argyris. But it was the Japanese who borrowed these concepts and adapted them for use in their culture.

Fundamental Problems with Japanese Approaches

In addition to the previously discussed difficulties inherent in transplanting Japanese practices in toto into American industrial and educational life, there are other problems that are worthy of consideration. One educational concern is the suicide rate among Japanese youngsters. The pressure to get into the best universities has been well documented. What is not as

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well known is that these pressures can be traced to early childhood preparation programs. Parents send their three and four year olds out for "cramming" so they will be prepared to pass the entrance exams to be accepted in the right preschool program. The pressure to pass the qualifying exams to get into the best elementary, junior high, and high school leads to the inevitable breakdowns and suicides that have reached an almost epidemic proportion in recent years.

Another problem is the unique band who make up the sokaiya -- the word means "people specializing in annual shareholders' meetings". The sokaiya extort money from company directors to spare them the personal embarassment of difficult questions about company activities and/or scandals involving senior personnel. Reuters News Service reports that the sokaiya bleed Japanese corporations, including some of those that are known worldwide, of hundreds of millions of dollars annually.[20] Sokaiya methods vary. Sometimes a company officer is approached with information about some questionable activity which the company would prefer kept secret. At other times, sokaiya, many of whom publish financial newsletters or magazines, will threaten to publish damaging information about the company.

There is also a third area of concern. Japanese workers are characterized as being dedicated to their company. This fact and the popular notion of Japan as "a nation of workaholics" may actually be without basis. Yes, numerous books and articles have cited industriousness, and the resulting high productivity, as keys to Japanese economic success. Yet, this system that virtually assures lifetime employment in exchange for loyalty may have some deceptive aspects:

(1) Office workers often remain sitting at their desks long after quitting time, working or feigning work. To head out the door before the boss is bad form -- and not conducive to career advancement.

(2) Japan's much-vaunted productivity does not apply to the white-collar world in the same way that it does to factories. White collar workers may not be that productive with some not even pulling their own weight.

(3) While reporting early and staying late is one way of showing the proper "company spirit," there is little difference in the number of scheduled hours of work for Japanese managers compared to their American counterparts.

(4) There also are important financial incentives for overtime. Workers do not necessarily get paid for all hours worked, but the most dedicated may earn heftier semi-annual bonuses, equal to several months' salary.[21]

Be Very Careful

The newest educational "quick fix" calls for the adoption of Japanese management practices by American educators. Book, journal, magazine, and newspaper articles are heralding Japanese practices as the newest panacea. Already, one can hear principals talking about minimal flow, just-in-time production, bottom-round management, Theory Z, quality-control circles, business-government partnerships, and lifetime employment.

Government and private business bureaucrats are also jumping on the bandwagon. The city of Blue Springs, Missouri, has followed the lead of Dallas which numbers 13,000 employees involved in quality circles.[22] All phases of the American business enterprise appear to be in a competition to be the first to adopt Japanese business practices.

This is not to say that Japanese management practices do not have something to offer American education. In fact, several Japanese management principles have exceptional potential and they need to be explored in far greater depth. However, we must approach these ideas with caution. Let us avoid wholesale adoption without careful analysis of their suitability for

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our situation. We have had too many failing programs caused by thoughtless, hurried implementation.